

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-6. (cancelled)

7. (currently amended) A method for allowing a client application to establish, in a client network, a first connection at a first security level with a first port of a server application hosted in a server machine linked to a server network, ~~connection between said client network and a server machine linked to a server network~~ in order to send messages addressed to the server machine, said messages passing from the client network to the server network through a network layer (CR) of a gateway machine, the method comprising:

~~receiving a request from the client network at a first port of a server application hosted in the server machine to establish a first connection at a first security level with the first port of the server application;~~

creating a second port in the gateway machine;

rerouting to the second port of the gateway machine, by ordering the network layer (CR) of the gateway machine, any message sent from the client network and addressed to the first port of the server machine;

receiving at the second port of the gateway machine a ~~the~~ request addressed to the first port of the server application to establish said first connection with the first port of the server application;

listening to the second port of the gateway machine to detect the request addressed to the first port of the server application to establish said first connection with the first port of the server application;

generating, in the gateway machine, a thread which establishes said first connection; and

generating a second connection at a second security level between the gateway machine and a third port of the server application, the third port being configured to receive at least one message at the second security level from the gateway machine via said second connection;

wherein the generating of said thread and said second connection is performed in response to the detection of the request addressed to the first port of the server application to establish said first connection.

8. (previously presented) A method according to claim 7, wherein said thread:

establishes, in a first phase, said first connection at the first security level in a first interface associated with the second port and with said request;

establishes, in a second phase, said second connection at the second security level in a second interface to the third port in the server machine;

writes, in a third phase, at the second security level in the second interface, any message read in the first interface at the first security level, and

writes, in a fourth phase, at the first security level in the first interface, any message read in the second interface at the second security level.

Claim 9. (cancelled)

10. (previously presented) A method according to claim 7, wherein said creating and rerouting are executed automatically by a first process of the gateway machine, and said first process generates a second process that executes said listening and generating.

11. (previously presented) A method according to claim 8, wherein said creating and rerouting are executed automatically by a first process of the gateway machine, and said first process generates a second process that executes said listening and generating.

12. (currently amended) A method according to claim 7, further comprising:
automatically executing said creating, and rerouting, ~~and deleting~~, by a first process of the gateway machine; and
generating, by said first process, a second process that executes said listening and said generating.

Claim 13. (cancelled)

14. (currently amended) A method for allowing a client application to establish, in a client network, a first connection at a first security level with a first port of a server application hosted in a server machine linked to a server network,
~~connection between said client network and a server machine linked to a server network~~ in order to send messages addressed to the server machine, said messages passing from the client network to the server network through a network layer (CR) of a gateway machine, the method comprising:

~~receiving a request from the client network at a first port of a server~~

~~application hosted in the server machine to establish a first connection at a first security level with the first port of the server application;~~

generating, in the gateway machine, a thread which establishes said first connection; and

activating, in the gateway machine, a secure application proxy that reroutes the messages addressed to the first port of the server application away from the first connection; and

establishing a second connection at a second security level between a second port of the server application and the gateway machine, said second port being configured to receive at least one message at a second security level from the gateway machine via said second connection;

wherein said generating is performed in response to detection of a ~~the~~ request addressed to the first port of the server application to establish said first connection; and

wherein said second connection is unknown to said client application.

Claims 15-17. (cancelled)

18. (previously presented) A method according to claim 7, wherein said first security level is different than said second security level.

19. (previously presented) A method according to claim 14, wherein said first security level is different than said second security level.

20. (previously presented) A method according to claim 7, further comprising deleting, by ordering the network layer (CR) of the gateway machine, any message sent from the client network to the third port located in the server machine regardless of a security level of said message sent to the third port.

21. (previously presented) A method as claimed in claim 14, further comprising deleting, by ordering the network layer (CR) of the gateway machine, any message sent from the client network to the second port located in the server machine regardless of a security level of said message sent to the second port.

22. (previously presented) A method as claimed in claim 14, wherein the rerouting of the messages addressed to the first port of the server application is done in a way that is transparent to the client application.